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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,147	03/24/2004	Hsiung-Kuang Tsai	QCO.090A/061116	2767
59747 7590 01/16/2007 KNOBBE, MARTENS, OLSON & BEAR, LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			EXAMINER LESTER, EVELYN A	
			ART UNIT 2873	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/16/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/807,147

Applicant(s)

TSAI ET AL.

Examiner

Evelyn A. Lester

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
EVELYN LESTER  
PRIMARY EXAMINER

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-6 and 8 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Piehl et al (U.S. Patent Pub. US 2004/0218251 A1).

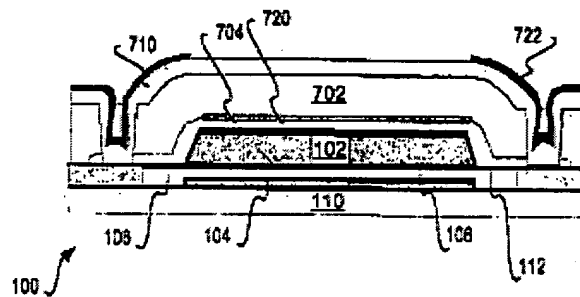
Piehl et al is interpreted to disclose the claimed invention, as especially noted in Figures 7A-7C and their accompanying text, of an optical interference display panel having a first substrate (which includes element 110, as noted on page 7, ¶ [0087]), an opaque protection structure (722) <sup>1</sup> and an optical interference reflection structure located between the first substrate and the opaque protection structure, wherein the optical interference reflection structure has a first electrode (102 or 104), a second

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<sup>1</sup> Please note that how an element is made is not germane to the patentability of the apparatus as claimed. MPEP 2113: "The patentability of a product does not depend on its method of production."

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electrode (104 or 102) and a support located between the first electrode and the second electrode (the support layer under element 706 as noted in Figure 7C:



and also including 112) which creates a cavity (106).

With respect to claim 3, wherein the opaque protection structure is a U-shaped protection structure (722). Again, please note Figure 7C above.

With respect to claim 4, please refer to page 8, ¶'s [0091] to [0092].

With respect to claims 5, wherein Piehl et al's invention further discloses the opaque protection structure includes a second substrate (702) and an opaque film (720, wherein the film serves as a capacitive plate and/or partial reflector which assumes "opaqueness").

With respect to claim 6, please note Figure 7C above, which shows that the opaque film is between the second substrate and the optical interference reflection structure.

With respect to claim 8, please note page 7, ¶ [0088].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Piehl et al (U.S. Patent Pub. US 2004/0218251 A1).

With respect to claim 7, Piehl et al is interpreted as disclosing the claimed invention as applied in the above rejection to claims 1-6 and 8, but does not specifically teach that the opaque film is a metal film or a light absorptive film. However, Piehl et al do teach that the opaque film serves as a capacitor plate (page 8, top of column 2, in ¶ [0094]), which clearly implies to one of ordinary skill in the art to be a metal film, in order to perform the function of a capacitor plate.

With respect to claim 10, Piehl et al is interpreted as disclosing the claimed invention as applied in the above rejection to claims 1-6 and 8, but does not specifically teach that an adhesive comprises a UV glue or a thermosetting adhesive, for use in the display panel. However, Piehl et al do teach that layers may be bonded (note page 7, ¶ [0086]), especially the "sealing layer." Though Piehl et al teach that this bonding method is costly, among other things, they do provide a working apparatus. Thereby, bonding suggests an adhesive. Since UV glue or thermosetting adhesives are well known in the MEMS art, it would have been obvious to one of ordinary skill in this art to utilize one of

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these adhesives since a strong adhesion is required under the operating conditions, such as when the apparatus heats during the operation to extreme temperatures. The adhesives must hold up under these operating conditions, and UV glue and thermosetting adhesives do hold up under extreme temps.

### ***Double Patenting***

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-4 and 8-10 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 and 5-6 of U.S. Patent No. 6,999,225 B2 (Lin et al; common assignee and a common inventor). Although the conflicting claims are not identical, they are not patentably distinct from each other

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because the application's claimed invention and the patent's claimed invention are but a slight variation of each.

The application's claimed invention (claims 1 and 9) and the patent's claimed invention (claim 1) both recite an optical interference display panel comprising:

a substrate ("first" or otherwise is only a matter of labels)

a protection structure (Though the application recites this structure as "opaque" and the patent's claimed invention does not, it would have been inherent, or at least obvious to one of ordinary skill in the art to provide the protection structure with an "opaqueness" in order to provide ample protection to the optical interference display panel. Since the light interference operates under reflection of light, it is only wise to eliminate as much extraneous light as possible, so as to not interfere with the operation, thereby protecting the display from the external environment. The external environment includes spurious light. Further, polymer materials which both Lin's and the Applicants' current claimed invention utilize (evidenced in the claims) inherently provide an opaque optical property.)

wherein the adhesive has spacers with specific recited function.

Note the application's claimed invention versus the patent's claimed invention:

claim 2 to claim 2;

claim 3 to claim 3;

claim 8 to claim 5; and

claim 10 to claim 6.

Thereby, the application's claimed invention is an obvious variation of the patent's claimed invention.

### ***Response to Arguments***

5. Applicant's arguments filed 10-20-06 have been fully considered but they are not persuasive.

In response to Applicant's arguments, the functional recitation that the "opaque protection structure" prevents light from passing through a defect in the optical interference reflection structure and causing a bad pixel, has not been given patentable weight because it is narrative in form. In order to be given patentable weight, a functional recitation must be expressed as a "means" for performing the specified function, as set forth in 35 USC § 112, 6th paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. In re Fuller, 1929 C.D. 172; 388 O.G. 279.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e. "opaque protection structure" covers the active area,) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The Applicants have provided the argument that the "border mask" of Piehl et al's invention does not cover the active area. This is



immaterial due to the fact that neither does the Applicants' claimed invention claim that the active area is covered by the "opaque protection structure".

In response to Applicant's argument that there is no motivation to provide Lin's (US Pat. 6,999,225, hereafter noted as '225) claimed invention with an opaqueness for the protection structure, it has been held that the mere fact that the references relied on by the Patent and Trademark Office fail to evince an appreciation of the problem identified and solved by applicant is not, standing alone, conclusive evidence of the nonobviousness of the claimed subject matter. The references may suggest doing what an applicant has done even though workers in the art were ignorant of the existence of the problem. Lin's invention has a protection structure, which by the claims, may be made of a polymer material (note claim 4 of Lin '225). It is well established that polymer materials do not have a 100% transparency, thereby inherently having an optical property of "opaqueness." Please note the Greco et al article, especially the data table on page 5094, provided with this office action. Not one polymer material tested provides 100% transparency, thereby having an opaque optical property. Since neither Lin '225 or the Applicant current claimed invention provide for specific polymer materials, it must be concluded that Greco et al sufficiently summarizes the nature of polymer materials.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evelyn A. Lester whose telephone number is (571) 272-2332. The examiner can normally be reached on M-F, subject to an increased flex schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky L. Mack can be reached on (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Evelyn A. Lester  
Primary Examiner  
Art Unit 2873